

### **REMARKS**

Claims 1-4, 10, and 12 have been canceled, claims 6-8, 11, and 13 have been amended, and claim 9 has been rewritten in independent form herein. Upon entry of this amendment, claims 5-9, 11, 13, and 15-22 will be pending in the above-identified Application. Applicants acknowledge the allowability of claim 9.

#### **Claims 5-7 and 22**

Applicants respectfully request reconsideration of the rejection of claims 5-7, and 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,070 (Yamazaki) in view of U.S. Patent No. 6,265,730 (Nakanishi).

Claim 5-7 and 22 depend, directly or indirectly, from claim 9, which was indicated as being allowable in the Final Office Action if rewritten in independent form. Claim 9 has been rewritten in independent form herein. Accordingly, Applicants request the Section 103 rejection of claims 5-7 and 22 be withdrawn.

#### **Claim 8**

Applicants respectfully request reconsideration of the rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki in view of Nakanishi, and further in view of U.S. Patent No. 6,063,654 (Ohtani).

Claim 8 recites a method of making a bottom-gate thin-film transistor including, among other things, forming a gate electrode on a substrate, forming a gate insulating film on the gate electrode, and forming a laminate on the gate insulating film. As recited in claim 8, forming the laminate includes forming a precursor film for an active layer, and forming a protective insulating film having a thickness of about 100 nm or less directly on and in physical contact with the precursor film. Further, as recited in claim 8, in the laminate forming step an amorphous silicon film is formed on the gate insulating film, the protective insulating film is formed on a surface of the amorphous silicon film by surface oxidation of the amorphous silicon film, and then the amorphous silicon film is crystallized to form the polysilicon film, wherein the surface oxidation

includes exposing the amorphous silicon film to hot steam of about 400 degrees Centigrade.

None of the cited references, considered alone or in combination, disclose or suggest all of the elements of claim 8. Rather, Yamazaki discloses plasma CVD and sputtering methods of forming an insulating film 105 (column 7, lines 10-15), and Nakanishi discloses forming a stopper 26 using plasma CVD. Ohtani discloses irradiating a surface of an amorphous silicon film 203 within an oxidizing atmosphere to form an oxide film. However, Yamazaki, Nakanishi, and Ohtani, considered alone or in combination, do not disclose or suggest forming a protective insulating film on a surface of an amorphous silicon film by exposing the amorphous silicon film to hot steam of about 400 degrees Centigrade.

The Office Action relies on In re Boesch, 617 F.2d 272 (C.C.P.A. 1980) in asserting that it would have been obvious to form a protective insulating film on a surface of the amorphous silicon film by exposing the amorphous silicon film to hot steam of about 400 degrees Centigrade. However, in Boesch the prior art disclosed ranges that overlapped the range of the Boesch invention. See Boesch at 275-276. In the present case, Yamazaki, Nakanishi, and Ohtani do not disclose or suggest ranges that include 400 degrees Centigrade regarding formation of a protective insulating film. Further, the rule of Boesch regarding the obviousness of discovering an optimum value of a variable is not directly applicable here because the variable at issue is the temperature of hot steam and hot steam is not disclosed or suggested in the references. In other words, discovering an optimum value for the temperature of hot steam variable would not have been obvious to a person practicing the Yamazaki invention because that variable was not present in Yamazaki.

Because the cited references, considered alone or in combination, do not disclose or suggest all of the recitations of claim 8, the Section 103 rejection is improper and should be withdrawn.

Claim 11

Applicants respectfully request reconsideration of the rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki in view of Nakanishi and further in view of U.S. Patent No. 6,281,552 (Kawasaki).

Claim 11 depends from any one of claims 5 to 9, which are patentable over Yamazaki in view of Nakanishi for the reasons discussed above. Claims 5-7 depend from claim 9, which was identified as being allowable. With respect to claim 8, Kawasaki does not make up for the deficiencies of Yamazaki in view of Nakanishi. Accordingly, claim 11 is likewise patentable over a combination of Yamazaki, Nakanishi, and Kawasaki. Applicants therefore request the Section 103 rejection of claim 11 be withdrawn.

Claims 13 and 15-21

Applicants respectfully request reconsideration of the rejection of claims 13 and 15-21 under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki in view of Nakanishi and further in view of U.S. Patent No. 6,420,758 (Nakajima) and U.S. Patent No. 6,582,837 (Toguchi).

Claims 13 and 15-21 depend, directly or indirectly, from any one of claims 5 to 9, which are patentable over Yamazaki in view of Nakanishi for the reasons discussed above. Claims 5-7 depend from claim 9, which was identified as being allowable. With respect to claim 8, neither Nakajima nor Toguchi, considered alone or in combination, make up for the deficiencies of Yamazaki in view of Nakanishi. Accordingly, claims 13 and 15-21 are likewise patentable over a combination of Yamazaki, Nakanishi, Nakajima, and Toguchi. Applicants therefore request the Section 103 rejection of claims 13 and 15-21 be withdrawn.

Claim 15 recites a method of fabricating an organic EL device including, among other things, forming an interlayer insulating film on a protective insulating film of a bottom-gate thin-film transistor, and forming an organic EL element driven by the bottom-gate thin-film transistor on the interlayer insulating film, wherein the EL element includes a luminescent layer sandwiched between a first pair of layers comprising an

anode layer and a hole-transporting layer and a second pair of layers comprising an electron-transporting layer and a cathode layer, and wherein the forming of the organic EL element comprises forming the cathode layer, forming the electron-transporting layer, forming the luminescent layer, forming the hole-transporting layer, and forming the anode layer, in this order.

Yamazaki, Nakanishi, and Nakajima do not disclose the layers recited in claim 15. Toguchi discloses an organic EL device having an anode 2 on a substrate 1, a hole-transporting layer 3 on the anode, a luminescent layer 4 on the hole-transporting layer, an electron-transporting layer 5 on the luminescent layer, and a cathode 6 on the electron-transporting layer (Fig. 2). Toguchi does not disclose or suggest forming the cathode layer, forming the electron-transporting layer, forming the luminescent layer, forming the hole-transporting layer, and forming the anode layer, in this order. Rather, Toguchi discloses forming these layers in reverse order to that recited in claim 15. For this additional reason, the Section 103 rejection of claim 15 is improper and should be withdrawn.

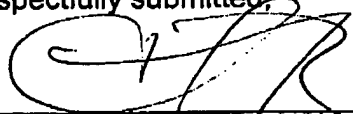
### Conclusion

If the Examiner believes that there is any issue which could be resolved by a telephone or personal interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

As it is believed the Application is in condition for allowance, a favorable action and a Notice of Allowance are respectfully requested.

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Respectfully submitted,



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